

Work Order ID 161793

Tuesday, May 23, 2017 9:41:50 AM

161793

Page 1

Item ID: D2940-1 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Support
 Start Date: 6/9/2017 Start Qty: 6.00 ***6*** Cust Item ID:
 Required Date: 6/23/2017 Req'd Qty: 6.00 ***6*** Customer:
 Reference:

Approvals: Process Plan: **DAS 21** Date: **MAY 23 2017** Tooling: _____ Date: _____ Run Start ***NR1***
 QC: **9-89** Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D2940	C

100	HAAS CNC VERTICAL MACHINING #1	2.80				6	φ		<i>P16-06-11</i>
100									
HAAS 1	Memo	2.85							
HAAS CNC vertical machine #1	1-Machine as per Folio FA079 2-Deburr								

110	QC2- Inspect parts off machine FAI/FAIB	0.00				6	φ		<i>P16-06-11</i>
110									
QC	Memo	0.06							
Quality Control									

120	QC8- Inspect parts - second check	0.00				6	φ		DAS 08 9-89
120									
QC	Memo	0.12							
Quality Control									

B.A 17-06-13

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QS1042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Past Expiry Date ☐	Manufacturing Process ☐				
Misidentified ☐	Past Due ☐	OTHER : _____			

Work Order ID 161793

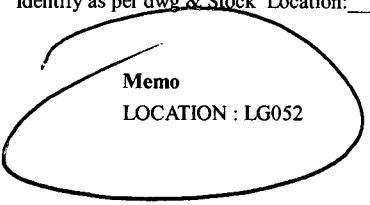
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Item Name: Support
Start Date: 6/9/2017 Start Qty: 6.00 ***6*** Cust Item ID:
Required Date: 6/23/2017 Req'd Qty: 6.00 ***6*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* HandFXtube	Memo Per note 8 on page 1 of dwg D2940, Prep inner concave surface of support and apply 3M Scotch-Weld as per dwg. 24h of cure time.	0.00 0.42				6			DAS 41 9-89 JUN 14 2017
140 *140* QC	QC5- Inspect part completeness to step on W/O Memo	0.00 0.12				u			DAS 38 9-89 JUN 15 2017
170 *170* Packaging Packaging	Identify as per dwg & Stock Location: _____  LOCATION : LG052	0.00 0.06							DAS 6 9-89 JUN 16 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Work Order ID 161793

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Page 3

Item ID: D2940-1

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Support

Start Date: 6/9/2017 Start Qty: 6.00

6

Cust Item ID:

Required Date: 6/23/2017 Req'd Qty: 6.00

6

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	QC21- Final Inspection - Work Order Release	0.00							
180									
QC	Memo	0.60							
Quality Control									

DAS
21
9-89

JUN 16 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
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Misidentified ☐	Past Due ☐																																																																

Picklist Print

Tuesday, May 23, 2017 9:41:48 AM

Page 1

Work Order ID: 161793

161793

Parent Item: D2940-1

D2940-1

Parent Item Name: Support

Start Date: 6/9/2017

Required Date: 6/23/2017

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP C 02.11.26Reformat; Added P/OKJ
IPP Rev:D Added priming as per Rev B 07-04-30 JLM
IPP E 08.03.19 Re-format Ec verified by DD
IPP Rev:F 08-10-22 add qc14 DD verified by:EC IPP Rev:G
11.08.04 as per dwg rev.C DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
DSK081		Manufactured	No			110	Each	7.0000	0.5	3.157895			

DSK081

D2940-1 Turning Detail

Location

Loc Qty

Loc Code

MAT060

7

151723

1

158926

6

1
2 *P17-0610*

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

DART AEROSPACE LTD		Work Order:	161793
Description: Ø3.250 Support		Part Number:	D2940-1
Inspection Dwg: D2940	Rev: C	Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	5
HAAS Section								
AA	0.240	0.260		.250	.250	.250	.250	.250
AB	0.490	0.510		.500	.500	.500	.500	.500
AC	0.140	0.160		.150	.150	.147	.148	.147
AD	3.510	3.530		3.515	3.517	3.515	3.515	3.515
AE	1.633	1.673		1.656	1.655	1.654	1.654	1.659
AF	1.493	1.513		1.502	1.499	1.498	1.501	1.502
AG	0.040	0.060		.049	.046	.048	.047	.048
AH	0.188	0.193		.191	.191	.191	.191	.191
AI	0.140	0.160		.148	.147	.145	.147	.146
AJ	2.518	2.538		2.525	2.525	2.525	2.523	2.525
AK	0.040	0.060		.047	.045	.043	.044	.059
AL	0.010	0.020		.010	.010	.010	.010	.010
AM	0.140	0.160		.150	.153	.149	.150	.150
AN	0.350	0.450		.385	.370	.370	.400	.400
AO	0.240	0.260		.250	.250	.250	.250	.250
AP	0.150	0.170		.155	.158	.155	.156	.158
AQ	0.053	0.073		.06	.06	.06	.06	.06
AR	101.64	105.64		103.64	103.64	103.64	103.64	103.64
AS	0.260	0.267		.260	.260	.260	.260	.260
AT	0.053	0.073		.063	.063	.063	.063	.063
AU	4.118	4.138		4.130	4.130	4.133	4.133	4.134
AV								
AW								
Accept/Reject								

Measured by:	DAS	Date:	17-06-11
Audited by:	K.A.	Date:	17-06-13
Prototype Approval:		Date:	

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	07.05.08	Dwg Rev. updated	KJ/JLM	
C	07.07.18	Dimension AS revised	KJ/JLM	
D	08.04.22	Reformat	KJ/JLM	
E	12.01.31	Dwg Rev. updated	KJ	

DART AEROSPACE LTD		Work Order: 161793
Description: Ø3.250 Support		Part Number: D2940-1
Inspection Dwg: D2940	Rev: C	Page 1 of 1

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

Dim	Min	Max	Go/No Go Gauge	Record Actual Dimensions				
				1	2	3	4	5
HAAS Section								
AA	0.240	0.260		250				
AB	0.490	0.510		.500				
AC	0.140	0.160		.152				
AD	3.510	3.530		3.515				
AE	1.633	1.673		1.658				
AF	1.493	1.513		1.502				
AG	0.040	0.060		.047				
AH	0.188	0.193		.191				
AI	0.140	0.160		.146				
AJ	2.518	2.538		2.525				
AK	0.040	0.060		.055				
AL	0.010	0.020		.010				
AM	0.140	0.160		.148				
AN	0.350	0.450		.405				
AO	0.240	0.260		.250				
AP	0.150	0.170		.158				
AQ	0.053	0.073		.060				
AR	101.64	105.64		103.64				
AS	0.260	0.267		.260				
AT	0.053	0.073		.063				
AU	4.118	4.138		4.135				
AV								
AW								
Accept/Reject								

Measured by: [Signature]	Date: 17-06-11
Audited by: B.A. DAS	Date: 17-06-13
Prototype Approval: [Signature]	Date:

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	07.05.08	Dwg Rev. updated	KJ/JLM	
C	07.07.18	Dimension AS revised	KJ/JLM	
D	08.04.22	Reformat	KJ/JLM	
E	12.01.31	Dwg Rev. updated	KJ	[Signature]

